

PATENT CLAIMS

1. Pressure pickup (1, 11) for registering a pressure, comprising a separating membrane (3, 13), and a platform (2, 12), wherein the separating membrane is secured to the platform pressure-tightly, such that a pressure chamber (7, 17) is formed between the platform and the separating membrane, wherein a pressure canal (4, 14) extends from the pressure chamber, and the pressure chamber and the pressure canal are filled with a hydraulic transfer liquid, characterized in that the pressure canal has at least one segment whose flow cross section is variable.
2. Pressure pickup (1, 11) as claimed in claim 1, wherein the variable flow cross section of the segment depends on the velocity of the transfer medium in the segment.
3. Pressure pickup (1, 11) as claimed in claim 1 or 2, wherein the segment of the pressure canal with a variable flow cross section is arranged in the entry region of the pressure canal.
4. Pressure pickup (1, 11) as claimed in one of the claims 1 through 3, wherein the segment with a variable flow cross section has an annular canal between an inner wall (5, 20) and an outer wall (6, 16).
5. Pressure pickup (1, 11) as claimed in claim 4, wherein the flow cross section of the annular canal can be changed via relative shifting of the axial position of the inner wall (6) with respect to the outer wall (5).
6. Pressure pickup as claimed in claim 5, wherein the inner wall (6) of the annular canal comprises a projection of the separating membrane (3).
7. Pressure pickup as claimed in claim 5, wherein an axially movable filler is arranged in the pressure canal, and the inner

wall of the annular canal is formed by the filler.

8. Pressure pickup as claimed in claim 7, further comprising an elastic element, wherein an equilibrium position of the filler relative to the platform is defined by means of the elastic element.

9. Pressure pickup as claimed in one of the claims 4 to 8, wherein the inner and outer walls of the annular canal are at least sectionally conical.

10. Pressure pickup as claimed in one of the preceding claims, wherein the segment with variable flow cross section has an elastically deformable wall (16).

11. Pressure pickup as claimed in claim 10, wherein the elastically deformable wall (16) is the outer wall segment of the pressure canal (14).

12. Pressure pickup as claimed in claim 11, wherein the elastically deformable wall is surrounded by a ring-chamber (15), which communicates with the pressure chamber (17).

13. Pressure pickup as claimed in claim 10, wherein the elastically deformable wall is the inner wall of an annular canal.

14. Pressure pickup as claimed in one of the preceding claims, wherein, during measuring operation in the nominal range of the pressure sensor, the segment with variable flow cross section provides at least 10% of the flow resistance of the hydraulic path between the pressure chamber and a pressure measuring cell, which is loaded with the measuring pressure via the hydraulic path.